**WHAT IS CLAIMED IS:**

1. A broadband capacitor assembly, comprising:

a first capacitor operable to provide a first end of an operational band of frequencies within an operational band of a broadband capacitor assembly; and

a second capacitor coupled in parallel to the first capacitor, the second capacitor operable to provide a second end of the operational band of frequencies within the operational band of the broadband capacitor assembly.

2. The broadband capacitor assembly of claim 1, wherein the first capacitor is operable to provide a high frequency end of the operational band of the broadband capacitor assembly.

3. The broadband capacitor assembly of claim 1, wherein the first capacitor is operable to provide an intermediary frequency end of the operational band of the broadband capacitor assembly.

4. The broadband capacitor assembly of claim 1, wherein the second capacitor is operable to provide a low frequency end of the operational band of the broadband capacitor assembly.

5. The broadband capacitor assembly of claim 1, wherein the first capacitor is a beam-lead capacitor.

6. The broadband capacitor assembly of claim 1, wherein the first capacitor has a value of substantially 20pF.

7. The broadband capacitor assembly of claim 1, wherein the second capacitor is a multi-layer capacitor.

8. The broadband capacitor assembly of claim 1, wherein the second capacitor has a

value of substantially 100nF.

9. The broadband capacitor assembly of claim 1, wherein the first capacitor has a high quality factor.

10 The broadband capacitor assembly of claim 1, wherein the first capacitor is a thin film capacitor.

11. The broadband capacitor assembly of claim 10, wherein the first capacitor comprises:

a thin film metallization formed on an alumnia substrate;

a silicon nitride dielectric coupled to a top surface of the thin film metallization; and

a second metal coupled to a top surface of the silicon nitride dielectric.

12. The broadband capacitor assembly of claim 1, further comprising:

a coplanar waveguide structure defining a transmission path having a signal conductor, wherein the first capacitor and the second capacitor are coupled across a gap formed in the signal conductor along the transmission path.

13. The broadband capacitor assembly of claim 12, wherein the second capacitor is positioned below the signal conductor of the coplanar waveguide.

14. The broadband capacitor assembly of claim 13, further comprising:

conductive leads coupled between the second capacitor and the signal conductor operable to couple the second capacitor across the gap formed in the signal conductor along the transmission path.

15. The broadband capacitor assembly of claim 12, wherein the second capacitor is positioned above the first capacitor.

16. The broadband capacitor assembly of claim 15, further comprising:

one or more conductive blocks coupled between the signal conductor of the coplanar waveguide and the second capacitor operable to couple the second capacitor across the gap formed in the signal conductor along the transmission path.

17. The broadband capacitor of claim 12, wherein the second capacitor is positioned to reduce parasitics that effect a high frequency operation of the first capacitor.

18. The broadband capacitor assembly of claim 12, wherein the first capacitor directly contacts the signal conductor of the coplanar waveguide.

19. The broadband capacitor assembly of claim 12, wherein the first capacitor is a broad side coupled capacitor positioned below a substrate of the coplanar waveguide.

20. The broadband capacitor assembly of claim 12, wherein the coplanar waveguide is mounted to a package ground.

21. The broadband capacitor assembly of claim 20, wherein at least a portion of the coplanar waveguide is suspended above the package ground by an air gap.

22. The broadband capacitor assembly of claim 20, wherein the second capacitor is suspended from a bottom of the coplanar waveguide into a cavity formed in the package ground.

23. A DC block, comprising:

a broadband capacitor assembly, including:

a first capacitor operable to provide a first end of an operational band of frequencies within an operational band of a broadband capacitor assembly; and

a second capacitor coupled in parallel to the first capacitor, the second capacitor operable to provide a second end of the operational band of frequencies within the operational band of the broadband capacitor assembly.

24. The DC block of claim 23, wherein the first capacitor is operable to provide a high frequency end of the operational band of the broadband capacitor assembly.

25. The DC block of claim 23, wherein the first capacitor is operable to provide an intermediary frequency end of the operational band of the broadband capacitor assembly.

26. The DC block of claim 23, wherein the second capacitor is operable to provide a low frequency end of the operational band of the broadband capacitor assembly.

27. The DC block of claim 23, wherein the first capacitor is a beam-lead capacitor.

28. The DC block of claim 23, wherein the first capacitor has a value of substantially 20pF.

29. The DC block of claim 23, wherein the second capacitor is a multi-layer capacitor.

30. The DC block of claim 23, wherein the second capacitor has a value of substantially 100nF.

31. The DC block of claim 23, wherein the first capacitor has a high quality factor.

32. The DC block of claim 23, wherein the first capacitor is a thin film capacitor.

33. The DC block of claim 32, wherein the first capacitor comprises:

a thin film metallization formed on an alumnia substrate;

a silicon nitride dielectric coupled to a top surface of the thin film metallization; and

a second metal coupled to a top surface of the silicon nitride dielectric.

34. The DC block of claim 23, further comprising:

a coplanar waveguide structure defining a transmission path having a signal conductor, wherein the first capacitor and the second capacitor are coupled across a gap formed in the signal conductor along the transmission path.

35. The DC block of claim 34, wherein the second capacitor is positioned below the signal conductor of the coplanar waveguide.

36. The DC block of claim 35, further comprising:

conductive leads coupled between the second capacitor and the signal conductor operable to couple the second capacitor across the gap formed in the signal conductor along the transmission path.

37. The DC block of claim 34, wherein the second capacitor is positioned above the first capacitor.

38. The DC block of claim 37, further comprising:

one or more conductive blocks coupled between the signal conductor of the coplanar waveguide and the second capacitor operable to couple the second capacitor across the gap formed in the signal conductor along the transmission path.

39. The DC block of claim 34, wherein the second capacitor is positioned to reduce parasitics that effect a high frequency operation of the first capacitor.

40. The DC block of claim 34, wherein the first capacitor directly contacts the signal conductor of the coplanar waveguide.

41. The DC block of claim 34, wherein the first capacitor is a broad side coupled capacitor positioned below a substrate of the coplanar waveguide.

42. The DC block of claim 34, wherein the coplanar waveguide is mounted to a package ground.

43. The DC block of claim 42, wherein at least a portion of the coplanar waveguide is suspended above the package ground by an air gap.

44. The DC block of claim 42, wherein the second capacitor is suspended from a bottom of the coplanar waveguide into a cavity formed in the package ground.